



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,386	01/02/2004	Jian-Kang Zhu	247354US20DIV	9333
22850 7590 04/14/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER BAUM, STUART F				
ART UNIT		PAPER NUMBER		
1638				
NOTIFICATION DATE		DELIVERY MODE		
04/14/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/749,386

Applicant(s)

ZHU ET AL.

Examiner

STUART F. BAUM

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36,46 and 51-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36,46 and 51-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The amendment filed 12/23/2008 has been entered.
2. Claims 36, 46 and 51-61 are pending.
Claims 1-35, 37-45 and 47-50 have been canceled.
3. Claims 36, 46 and 51-61, including SEQ ID NO:1 encoding SEQ ID NO:2 are examined in the present office action.
4. Rejections and objections not set forth below are withdrawn.
5. The text of those sections of Title 35, U.S. Code not included in this office action can be found in a prior office action.

Claim Objection

6. Claim 52 is objected to for misspelling "thaliana".

Scope of Enablement

7. Claims 36 and 52-61 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of increasing the salt tolerance of a plant comprising increasing the expression of a polynucleotide encoding a polypeptide of SEQ ID NO:2, wherein said polypeptide has Na^+/H^+ antiporter activity and wherein said increasing the expression is by either increasing the copy number of said polynucleotide as compared to the wild type plant or by replacing the native promoter of said polynucleotide with a stronger promoter, does not reasonably provide enablement for said method comprising a polynucleotide encoding a polypeptide exhibiting less than 100% identity with SEQ ID NO:2. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly

connected, to make and/or use the invention commensurate in scope with these claims. This rejection is maintained for the reasons of record set forth in the Official actions mailed 12/12/2007 and 7/10/2008. Applicant's arguments filed 12/23/2008 have been fully considered but they are not persuasive.

Applicants state "Further, Applicants submit that the skilled artisan would find the practice of the present invention with the full scope of the claimed invention to be well within the purview of "ordinary skill". This is especially true when consideration is given to the explicit examples in the present application" (page 8 of Remarks, 2nd full paragraph).

The Office contends amending claim 36 to recite "...polypeptide that is at least 95% identical to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide has Na⁺/H⁺ antiporter activity..." will obviate the rejection. Support for said amendment can be found at least at page 16, top paragraph and page 18, 2nd full paragraph of the specification.

Double Patenting

8. Claims 36, 46, and 51-61 remain rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 8-11, 19-22, 29-33, 41-44, 52-55, 63-66 of U.S. Patent No. 6,727,408 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are obvious over the claims of Patent No. 6,727,408 B2. This rejection is maintained for the reasons of record set forth in the Official actions mailed 12/12/2007 and 7/10/2008. Applicant's arguments filed 12/23/2008 have been fully considered but they are not persuasive.

Applicants request that this ground of rejection be held in abeyance until an indication of allowable subject matter has been given (paragraph bridging pages 8-9).

The Office contends the double patenting rejection is maintained.

9. Claims 36, 46, and 51-61 are deemed free of the prior art, given the failure of the prior art to teach or reasonably suggest a method of increasing the salt tolerance of a plant in need thereof comprising increasing the expression of a polynucleotide encoding a polypeptide that is at least 95% identical to SEQ ID NO:2 wherein increasing the expression is by either increasing the copy number of said polynucleotide or by replacing the native promoter of said polynucleotide with a stronger promoter, or wherein said polynucleotide comprises SEQ ID NO:1 or wherein said polynucleotide encodes the polypeptide of SEQ ID NO:3.

10. No claims are allowed.

11. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart F. Baum whose telephone number is 571-272-0792. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Stuart F. Baum/
Stuart F. Baum Ph.D.
Primary Examiner
Art Unit 1638
April 7, 2009